



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/779,820

02/18/2004

Shinobu Sasaki

1080.1135

6805

21171 7590 03/24/2009
STAAS & HALSEY LLP
SUITE 700
1201 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

EXAMINER

JEN, MINGJEN

ART UNIT

PAPER NUMBER

3664

MAIL DATE

DELIVERY MODE

03/24/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/779,820	Applicant(s) SASAKI, SHINOBU	
	Examiner IAN JEN	Art Unit 3664	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 December 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>01/03/2008;03/15/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. In view of the Appeal Brief filed on December 9th, 2008, PROSECUTION IS HEREBY REOPENED. A new ground of rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

/KHOI TRAN/
Supervisory Patent Examiner, Art Unit 3664.

Response to Amendment

2. This action is response to the appeal brief filed on December 9th, 2009

3. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Art Unit: 3664

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1 – 8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kulakowski et al (US Pat 6731455) in view of Hanaoka et al et al (US Pat 6144519) and further in view of Utsumi et al (US Pat 5967339).

As for claim 1,10, Kulakowski et al show a library device comprising: a cell array which consists of an array of multiple cells each of which contains one of multiple cartridges each containing a storage medium (Abstract, Fig 1, Fig 4, Col 5, lines 65 - Col 6,lines 30); media drives in which the cartridges are removably mounted and which access the storage medium contained in the cartridges (Fig 1, Fig 2; Fig 3, Col 4, lines 45 - Col 5, lines 20); a robot which transfers the cartridges between the cell array and the media drives (Fig 3, Fig 4, Col 5,lines 65 - Col 5,lines 30); a control board which controls operation of the library device (Fig 2; Col 4, lines 45- Col 5,lines 20; Col 11, lines 20-45), being equipped with a first memory which stores control information needed to control the operation of the library device rewritably in a non-volatile manner (Fig 2; Memory 54, Memory 24; Col 4, lines 45- Col 5,lines 20; Col 11, lines 20-45), each of the cartridges contains the storage medium (Abstract, Fig 1) and comprise a second memory which stores information rewritably in a non-volatile manner (Fig 1,memory

Art Unit: 3664

24; Col 11, lines 20-45) ; the robot is equipped with a memory reader/writer which accesses the second memory installed in the cartridge received by the robot (Fig 1, Fig 3; Col 4, lines 10- 45); Kulakowski et al is silent regarding the second memory installed in the diagnostic cartridge stores backup information which is the same as the control information stored in the first memory; wherein the backup control information is transferred to the first memory of the control board from the diagnostic cartridge when the control board is replaced; One of the multiple cartridges is a diagnostic cartridge for the library device.

Hanaoka et al et al shows backup information which is the same as the control information is stored in the first memory (Column 2, lines 38 - lines 48; See" upon power -on starting, the value serving as reference data, which is stored in the floppy disk, is compared with that stored in the ROM").

Utsumi et al shows one of the multiple cartridge is a diagnostic cartridge for the library device (Col 17, lines 9, 10; Diagnostic Cartridge 62; Fig 20)

Further, supplemental materials which fully describes a library system with a diagnostic cartridge along with the backup information is provided; where the diagnostic/testing application along with the backup information storage to be implemented by DLTsage cartridge for testing/diagnostic in a library device is fully disclosed and one of ordinary skill in the art took an official notice that the information from supplemental material is widely used in industry and well known in the art.

Further, it is inherent that the function of backup information would be activated as a backup/support mean while a new control board and memory in a library were replaced; where the primary purpose of back up information are meant for the secondary back up and to be

Art Unit: 3664

transferred to the library control board memory from the backup information, which is from the diagnostic cartridge. Otherwise, the backup information would not function as the intended use of backup information.

It would have been obvious for one of ordinary skill in the art to provide backup information of Hanaoka with the diagnostic cartridge of Utsumi, to the automated library system of Kulakowski, in order to provide backup data along with the backup information stored in the cartridge, diagnostic cartridge, as both taught by Hanaoka and Utsumi.

As for claim 2, Kulakowski et al does not show the back up information. Hanaoka et al et al further shows the first memory stores, as part of the control information, ID information which represents the library device; and upon power-up, the control board judges whether the ID information stored in the first memory represents the library device, (Column 2, lines 38 - lines 48; See "upon power -on starting, the value serving as reference data, which is stored in the floppy disk, is compared with that stored in the ROM"), and if the ID information stored in the first memory does not represent the library device, the robot takes the diagnostic cartridge out of the cell array, reads the backup information out of the second memory installed in the diagnostic cartridge and sends the backup information to the control board, and the control board writes the backup information received from the robot into the first memory (column 2, lines 49 - lines 52; See "if not matched, the re-acquisition of the value of the cell address should be performed").

It would have been obvious for one of ordinary skill in the art to have stored backup and ID information on Kulakowski et al diagnostic cartridge since it is commonly well known to

Art Unit: 3664

have done so per Hanaoka et al et al. The modification would provide backup control information for the library system.

As for claim 3, Kulakowski et al modified system does not show a serial label and information exchange between first and second memory.

Utsumi et al shows the library device comprises a serial label which contains ID information representing the library device and the robot comprises a first sensor which reads the serial label (Col 7, lines 20-40; Col 16, lines 45 - Col 17, lines 30). Hanaoka et al shows, upon power-up, the robot reads the serial label using the first sensor, extracts the ID information from the serial label, and sends the ID information to the Control board, and the control board checks the ID information received from the robot against the ID information stored in the first memory, and thereby judges whether the ID information stored in the first memory represents this library device (Column 2, lines 38 - lines 48; See "power -on starting, the value serving as reference data, which is stored in floppy disk, is compared with that stored in the ROM"; Column 2, lines 49 - lines 52; See "if not matched, the re-acquisition of the value of the cell address should be performed by conducting a measurement thereof by use of the accessor as an operation to be performed when data exception occurs").

It would have been obvious to one of ordinary skill in the art to modify the library device of Kulakowski et al and Hanaoka et al et al by adding the serial label of Utsumi et al in individual cartridges and in order to monitor data cartridge exchange and reading process between library device and robots.

Art Unit: 3664

As for claim 4, Kulakowski et al modified system does not show cell flag and cell flag sensor and upon power up, if two pieces of ID information do not match, the robot detects the location of the cell flags using the second sensor and send the location information about the cell flags to the control board, the control board finds location information about the cell containing the diagnostic cartridge based on the location information received form the robot, and the robot takes the diagnostic cartridge out of the cell containing the diagnostic cartridge by moving according the location information, found by the control board, about the cell containing the diagnostic cartridge.

Utsumi et shows the cell array has, over a plurality of locations, cell flags which are marks used to recognize locations of the plurality of cells composing the cell array, (Col 7, lines 20-40; Col 16, lines 45 - Col 17, lines 30; Abstract; Column 2, lines 9-11, See Fig. 30) the robot comprises a second sensor to detect the locations of the cell flags, (Column 16, lines 50 - C61 18, lines 20) and the robot takes the diagnostic cartridge out of the cell containing the diagnostic cartridge by moving according to the location information, found by the control board, about the cell containing the diagnostic cartridge (Column 16, lines 50 - Col 18, lines 20; Fig 3, cartridge 10).

Hanaoka et al shows, the control information, location information about the cell flags detected by the second sensor or location information about the cells corresponding to the cell flags detected by the second sensor (Column 15, lines 30 - lines 36 as the cell address translation table 82 stored in the accessor controller 28); and upon power-up, if the two pieces of ID information do not match, the robot detects the locations of the cell flags using the second sensor and sends the location information about the cell flags to the control board, the control board

Art Unit: 3664

finds location information about the cell containing the diagnostic cartridge based on the location information received from the robot (Column 2, lines 38 - lines 48).

It would have been obvious to one of ordinary skill in the art to provide the library device of Kulakowski et al and Hanaoka et al by providing the serial label of Utsumi et al in individual cartridges and in order to monitor data cartridge exchange and reading process between library device and robots.

As for claim 5, Kulakowski et al shows the cartridges contain magnetic tape as the storage medium and the media drives access the magnetic tape contained in the cartridges (Abstract, Fig 1, Fig 4, Col 5, lines 65 - Col 6, lines 30; Fig 2; Fig 3, Col 4, lines 45 - Col 5, lines 20).

As for claim 6, Kulakowski et al shows the second memory installed in the cartridge and the memory reader/writer installed on the robot (Fig 2; Col 4, lines 45- Col 5, lines 20; Col 11, lines 20-45; Fig 1, memory 24; Col 11, lines 20-45; Fig 1, Fig 3; Col 4, lines 10- 45).

Kulakowski et al and Hanaoka et al do not show the wireless communication between the cartridge and robot.

Utsumi et al shows show the wireless communication between the cartridge and robot (Col 17, lines 5 - 60).

It would have been obvious to one of ordinary skill in the art to provide the library device of Kulakowski et al and Hanaoka et al by providing the wireless photo sensor of Utsumi et al in order to provide efficient cartridge information reading.

Art Unit: 3664

As for claim 7, Kulakowski et al does not show the serial label. Utsumi et al shows the serial label is a barcode label which uses a barcode as the ID information about the library device and that the first sensor reads the barcode recorded on the barcode label using a one-dimensional array of light-sensitive devices;(Column 17, lines 40 - 65; Column 17, lines 13 - lines 16 as bar code label; Column 17, lines 61 -66 as master label 65).

It would have been obvious to one of ordinary skill in the art to provide the bar code label of Utsumi et al to the library device of Kulakowski et al and Hanaoka et al for providing feedback information from library device to controller.

As for claim 8, Kulakowski et al modified system does not show the first sensor combines the second sensor. Utsumi et al shows the first sensor combines the second sensor (Column 17, lines 5 - 66; both bar code reader (first sensor) and photosensor (second sensor) are both integrated into accessor 7).

It would have been obvious to one of ordinary skill in the art to provide the library device of Kulakowski et al and Hanaoka et al et al by providing the integrated sensors of Utsumi et al in order to provide efficient cartridge information reading.

As for claim 8, Kulakowski et al modified system does not show the first sensor combines the second sensor. Utsumi et al shows the first sensor combines the second sensor (Column 17, lines 5 - 66; both bar code reader (first sensor) and photosensor (second sensor) are both integrated into accessor 7).

Art Unit: 3664

It would have been obvious to one of ordinary skill in the art to provide the library device of Kulakowski et al and Hanaoka et al et al by providing the integrated sensors of Utsumi et al in order to provide efficient cartridge information reading.

Response to Arguments

6. Applicant's arguments with respect to claims 1 – 12 have been considered but are moot in view of the new ground(s) of rejection.

7. In response to applicant's argument that one of ordinary skill in the art has not established a prima facie case of obviousness. Applicant's attention is directed to MPEP § 2143 Basic Requirements of a Prima Facie of Obviousness where MPEP § 2143.01 states the prior art must suggest the desirability of the claimed invention. Applicant's attention is further directed MPEP § 904.02(a) where indicates the proper classification search guideline for the prior art reference where both the primary reference Kulakowski et al and secondary reference, Hanaoka et al previously classified in class 360/92, now class 360/91, directed to Dynamic Magnetic Information Storage or Retrieval - Plural Tapes, sub class of 360/90, under class 360/88, which is under class definition and cross reference with class 700 and where both reference directed to the library system as the same with applicant's invention. Applicant's attention is further directed to MPEP § 2143.02 states reasonable expectation of success is required; obviousness requires only a reasonable expectation of success. Applicant's attention is further directed to Kulakowski et al and Hanaoka et al, where Kulakowski et al provides a known library device and control method, and diagnostic cartridge which is capable for store information; Hanaoka et al shows backup

Art Unit: 3664

information is the same with the control information; where it is obvious for one of ordinary skill in the art to provide a known teaching/technique, that provided by Hanaoka et al, to a known device/method of Kulakowski et al ready for improvement to yield predictable results.

Applicant's attention is further directed MPEP § 2143.03 states where all the claim limitation need to be addressed. Applicant's attention is further direct to claim rejection of claim 1 and claim 6 where all the claim limitation has been addressed.

8. Applicant further argues that Kulakowski does not expressly or implicitly disclose one of its disk drives being a diagnostic, because the phrase "diagnostic" does not appear in Kulokowski's description. Applicant's attention is directed to newly recited reference, Utsumi et al, Col 17, liens 9, 10; Diagnostic Cartridge 62; Fig 20, where diagnostic cartridge is shown. Further, applicant's attention is directed to the supplemental material provided, where shows the diagnostic cartridge.

9. Applicant argues that Kulakowski fails to teach the ID information represents the library device and the ID information....does not represent the library device. However, Hanaoka et al were used per claim 2 to show ID information. Applicant's attention is directed to (Column 2, lines 38 - lines 48; See" upon power -on starting, the value serving as reference data, which is stored in the floppy disk, is compared with that stored in the ROM).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to IAN JEN whose telephone number is (571)270-3274. The examiner can normally be reached on Monday - Friday 9:00-6:00 (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Khoi Tran can be reached on 571-272-6916. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free)? If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ian Jen/
Examiner, Art Unit 3664

/Dalena Tran/
Primary Examiner, Art Unit 3664